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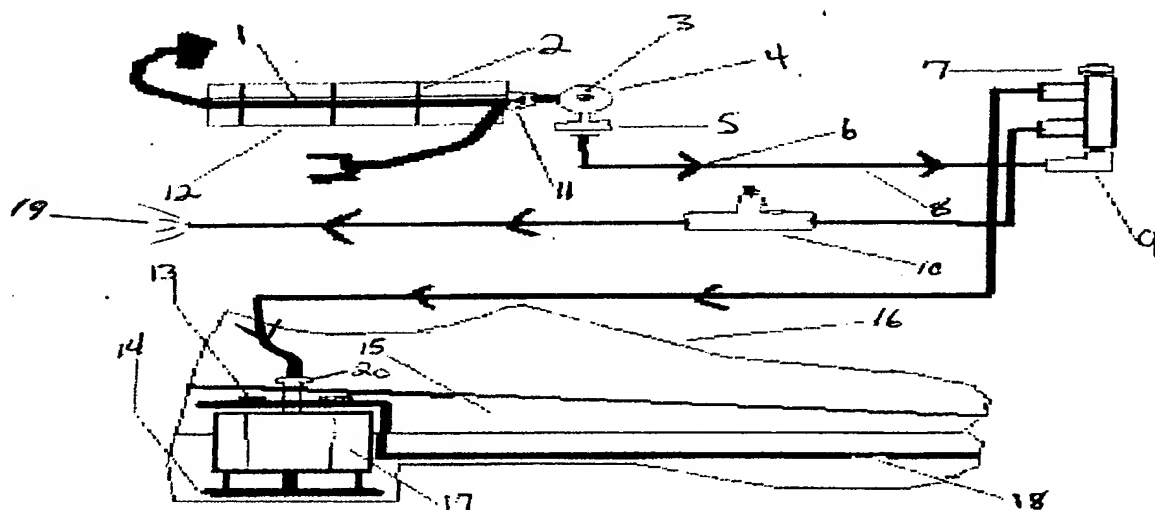
# The Levitating Shoe

## Drawings (Figures)

Best Available Copy

- 1- Co2 Tank.
- 2- Fasteners for securing the Co2 tank to the waist belt.
- 3- Air pressure adjustment screw (P.S.I - up or down).
- 4- Regulator.
- 5- Air speed control valve.
- 6- Air flow direction.
- 7- Three way valve switch for controlling Co2 pressure to the shoe and up or down movement of the shoe cylinder.
- 8- 5/32 polyurethane air line.
- 9- Rotary joint elbow.
- 10- In line air speed control valve.

Drawing - 1

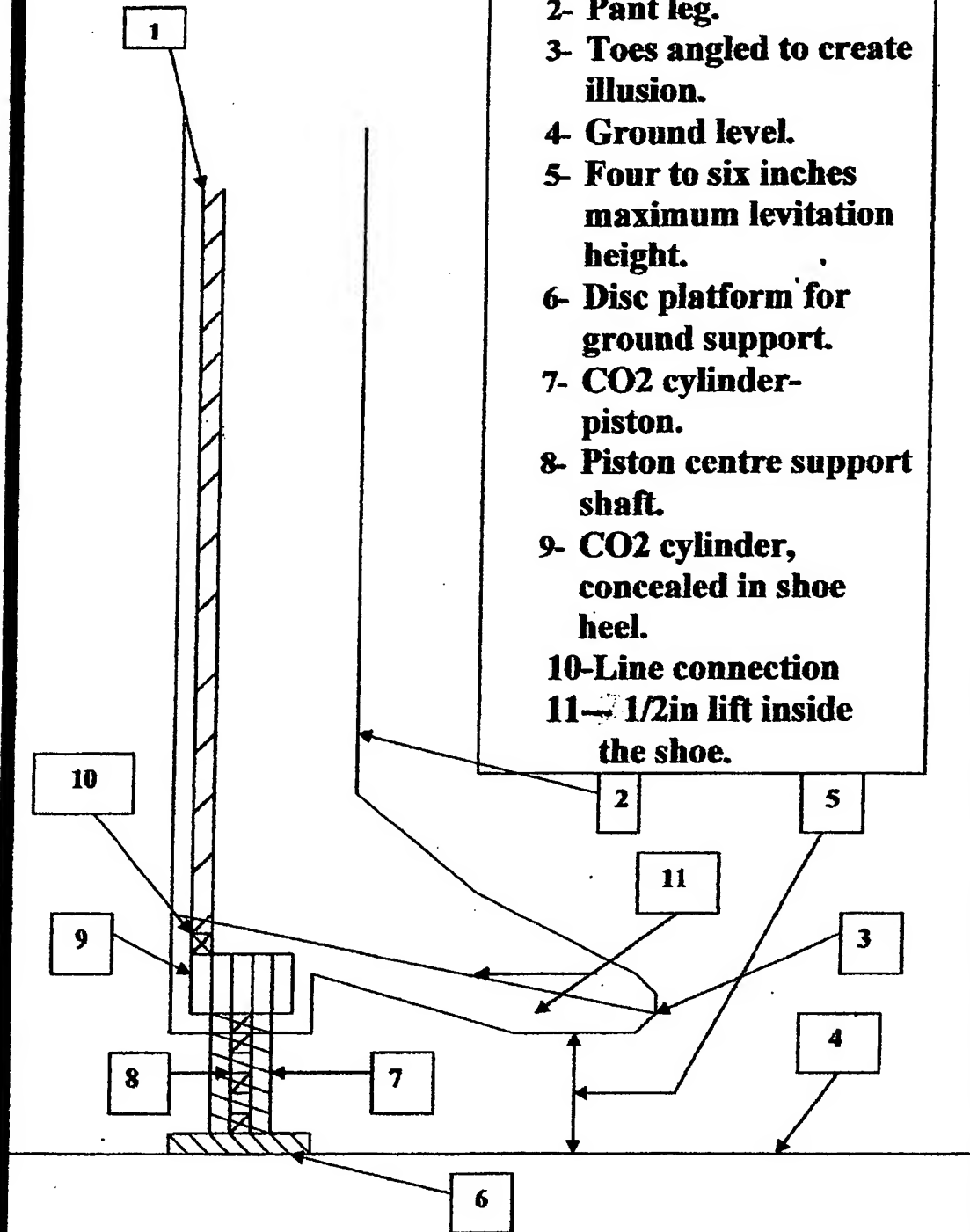


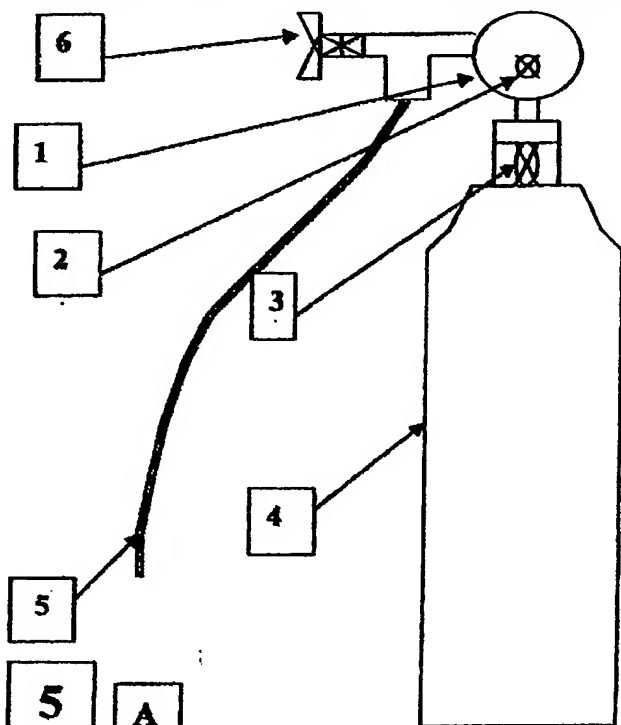
- 11- Air pressure on/off valve.
- 12- Co2 tank.
- 13- Air cylinder mounting bolts.
- 14- Air cylinder platform.
- 15- 1/2 inch lift inside shoe.
- 16- Shoe (custom designed).
- 17- Air cylinder.
- 18- Metal support mounting plate.
- 19- Air pressure exit (when three way valve button is released).
- 20- Air pressure in and out port (part of air/shoe cylinder).

**Drawing- 2**

**5**

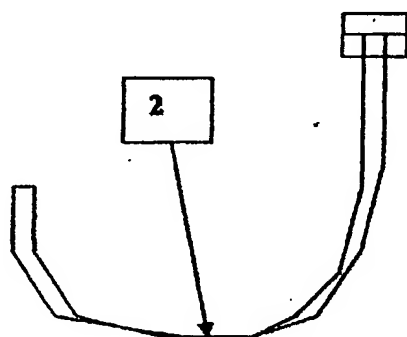
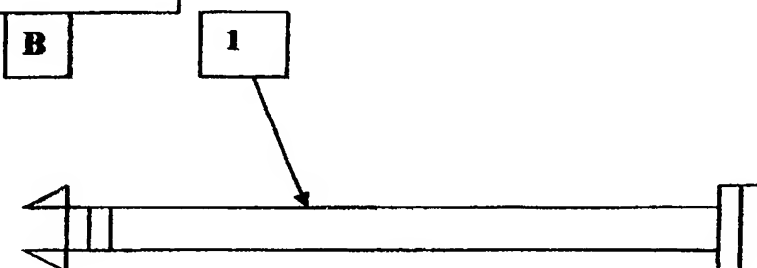
- 1-  $\frac{5}{32}$  inch CO2 line concealed under pants.
- 2- Pant leg.
- 3- Toes angled to create illusion.
- 4- Ground level.
- 5- Four to six inches maximum levitation height.
- 6- Disc platform for ground support.
- 7- CO2 cylinder-piston.
- 8- Piston centre support shaft.
- 9- CO2 cylinder, concealed in shoe heel.
- 10- Line connection
- 11-  $\frac{1}{2}$  in lift inside the shoe.





- 1- Regulator.
- 2- Pressure adjustment valve.
- 3- Pressure on/off valve.
- 4- Nine ounce CO2 tank. (Size 9x21/2 in)
- 5- 5/8 inch CO2 line.
- 6- CO2 pressure flow speed control manual valve, to adjust speed of levitation.

**Drawing-3**



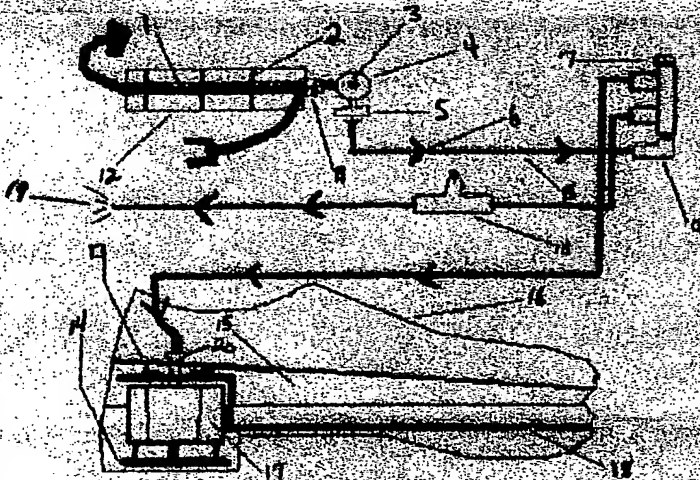
- 1- Leather belt for securing CO2 tank to waist.
- 2- Approx-three nylon fastener straps for securing CO2 tank to belt.

# The Levitating Shoe

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**Drawing - 1**



- 11- Air pressure on/off valve.
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5

# **Drawing- 4**

7

**Supply  
Line  
8**

**Shoe  
Line  
9**

2

**Waste  
Line  
10**

4

1

**Waist Belt**

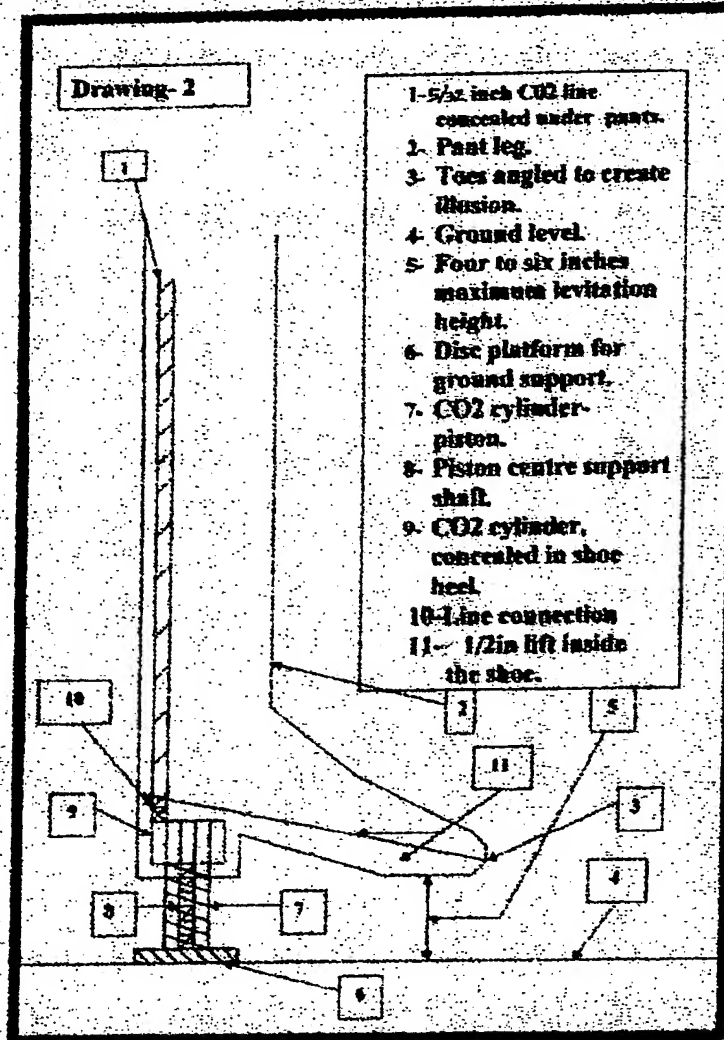
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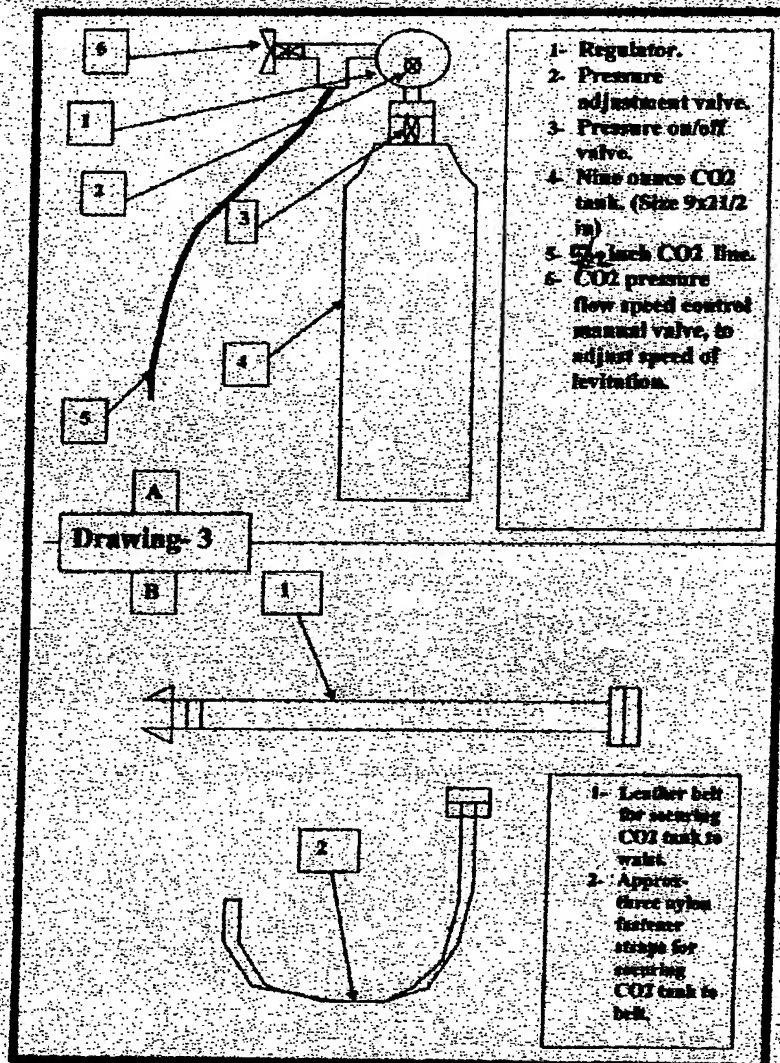
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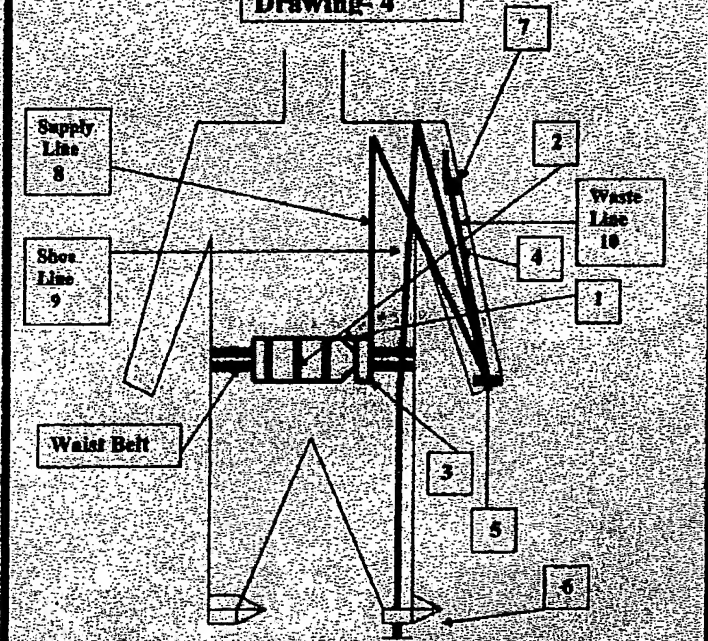
- 1- CO2 tank.
- 2- Fastener straps for securing tank to waist belt.
- 3- Air speed control valve.
- 4- Polyurethane waste line, extending from the valve switch, up the arm and over the shoulder.
- 5- Three way valve switch for manual control of up and down movement of cylinder.
- 6- CO2 cylinder piston shaft, extend-from shoe.
- 7- In line air speed control valve.

**Drawing- 2**





**Drawing- 4**



- 1- CO2 tank.
- 2- Fastener straps for securing tank to waist belt.
- 3- Air speed control valve.
- 4- Polyurethane waste line, extending from the valve switch, up the arm and over the shoulder.
- 5- Three way valve switch for manual control of up and down movement of cylinder.
- 6- CO2 cylinder piston shaft, extend-from shoe.
- 7- In line air speed control valve.



## 3-Way Valves "3" Series

*For Reference  
Only*

The Pneumacyne "3" Series are 3-way, normally closed fully ported valves.

**Closed cross-over.** The normally closed "3" Series features a stem and poppet that work in conjunction with one another. The poppet seals the exhaust port before it opens to flow. There is no transitional state from one function to the next providing the operator precise control between positions.

The addition of the threaded exhaust port makes it possible to direct and capture the exhaust flow in liquid, clean-room or lubricated air applications.

Mufflers can also be threaded in the exhaust port for noise control.

Designation	Material
422	Aluminum Die Cast
423	Aluminum Die Cast
424	Aluminum Die Cast
425	Aluminum Die Cast
426	Aluminum Die Cast
427	Aluminum Die Cast
428	Aluminum Die Cast
429	Aluminum Die Cast
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446	Aluminum Die Cast
447	Aluminum Die Cast
448	Aluminum Die Cast
449	Aluminum Die Cast
450	Aluminum Die Cast



### FEATURES

- Speed Control: precisely permit the control rate of airflow for the smooth cylinder movement of a driving device.
- The compact design provides a comprehensive range of sizes as the larger standard speed controllers do.
- Compact and light body is suitable for pneumatic applications where space is at a premium.
- Undersized surface is available for either exhaust or pilot flow control methods.

### SPECIFICATIONS

Complete Valve	Two Port Valve or Manual
Operating Pressure Range	10-150 PSI (0.7-10.3 BAR)
Operating Temperature Range	-20 to 150°F (-30 to 65°C)
Operating Air Flow Range	0.5 to 1.5 SCFM (14 to 42 L/min)
Operating Air Flow Rate	0.5 to 1.5 SCFM (14 to 42 L/min)

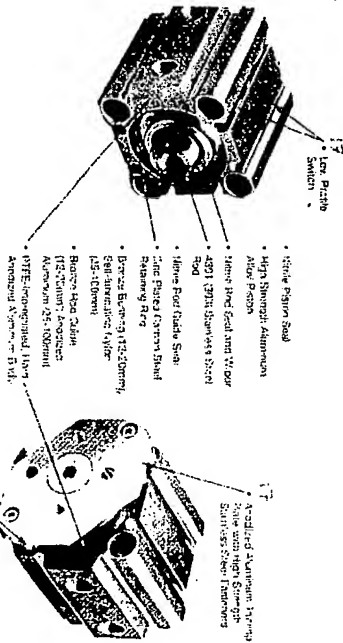
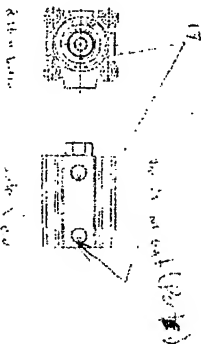
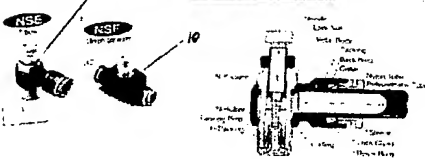
### FEATURES

- Two embedded bearings better accommodate speed rotation and swiveling of pneumatic action.
- Built in bearing accommodates the relative swiveling of pneumatic movement.
- Pottery joints are constructed to fully resist vibration or taking movements.

### STRUCTURAL DIAGRAM



### STRUCTURAL DIAGRAM



*Actual Size*

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